
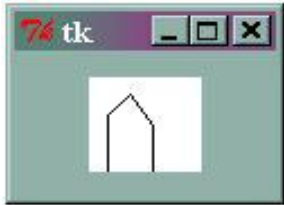


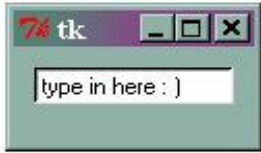




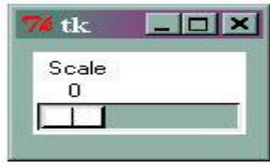


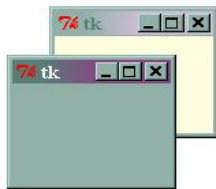


## Appendix 1 List of Widget and their usages

Widget	Description	What does it look like?	Example Code
<a href="#">Button</a>	A button which runs a function when you press it with the mouse.		<pre> root = Tk() button = Button(root, text = 'hello', command = Change , width = '1', height = '1' , activebackground = 'yellow' , bg = 'blue' , fg = 'white' ) button.pack(padx = 10, pady = 10) root.mainloop() </pre>
<a href="#">Canvas</a>	You can use the canvas to draw pictures, include pictures, even make your own widget by binding the corresponding actions to what ever you want.	<div>Insert Drawings</div> 	<pre> can = Canvas(root, width = '80', height = '60', bg = 'white') can.pack(padx = 5, pady = 5) s = can.create_line(10, 50,10,20,20, 10, 30, 25, 30, 50) </pre>
		<div>Insert Pictures</div> 	<pre> can = Canvas(root, width = '80', height = '60', bg = 'white') can.pack(padx = 5, pady = 5) photo = PhotoImage(file="jacqui.gif") item = can.create_image(0, 0, anchor=N+W, image=photo) </pre>
<a href="#">Checkbutton</a>	A check comes out when you click on it. Used to check a list of objects		<pre> root = Tk() root.geometry('200x50+250+50')  check = Checkbutton(root, bg = 'lightyellow', text = "Option 1",font=("Helvetica",20))  check.pack() </pre>

<a href="#">Entry</a>	A text entry field.		<pre>entry = Entry(root, bg = 'white').pack(padx = 10, pady = 10)</pre>
<a href="#">Frame</a>	A container widget. Used to group other widgets together and organize your widgets		<pre>frame = Frame(root,bg = 'lightblue', width = 70, height = 60) frame.pack(padx = 10, pady = 10)</pre>
<a href="#">Label</a>	Displays a text or an image.		<pre>label = Label(root, font=("Helvetica",12),fg = 'pink', text = 'I am a label') label.pack(padx = 10, pady = 10)</pre>
<a href="#">Listbox</a>	Displays a list of alternatives. The listbox can be configured to get radiobutton or checklist behavior.		<pre>lists = Listbox(root, width = 10) lists.pack(padx = 10, pady = 5)  lis = ['Chieh','Patrick','Gwen','Sam']  for item in lis:     lists.insert(END, item)</pre>
<a href="#">Menu</a>	A menu pane. Used to implement pulldown and popup menus.		<pre>menubar = Menu(root) filemenu = Menu(menubar, tearoff= 0) filemenu.add_command(label="Exit") menubar.add_cascade(label="File", menu = filemenu) root.config(menu=menubar)</pre>

<a href="#">Scale</a>	Allows you to set a numerical value by dragging a "slider".		<pre>scale = Scale(root, label = "intensity", orient = "horizontal", fg = 'white') scale.pack()</pre>
<a href="#">Scrollbar</a>	Standard scrollbars for use with canvas, entry, listbox, and text widgets.		<pre>frame = Frame(root,bg='blue') frame.pack()  scroll = Scrollbar(frame,bg='yellow') scroll.pack(side=RIGHT, fill=Y)  text = Text(frame, font=("Helvetica",10), width= 10, height = 10, yscrollcommand=scroll.set, bg = 'white') text.pack(side=LEFT)  scroll.config(command=text.yview)</pre>
<a href="#">Text</a>	Formatted text display. Allows you to display and edit text with various styles and attributes. Also supports embedded images and windows.		<pre>text = Text(root, width = 10, height = 10, bg = 'yellow', fg = 'orange') text.pack()</pre>
<a href="#">Toplevel</a>	A container widget displayed as a separate, top-level window.		<pre>root = Tk() root.geometry('200x50+250+50')  msg = Toplevel(bg = 'LightYellow') msg.geometry('200x50+200+100')  root.mainloop()</pre>

